

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963420017-8

HAVRANEK, MILOVA, A.; MUSIL, M.; ZAHRADKOVA, L.

Hygiene of communities. Cesk. hyg. 7 no.6:337-340 J1 '52.
(PUBLIC HEALTH)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963420017-8"

MILLOVA, A.; STROS, O.; TEJMAR, J.; ZAHRAJEKOVA, L.

Stenotic respiration in physical work. *Cesk. fysiol.* 8 no.3:224 Apr 59.

1. Ustav hygieny, Praha. Predneseno na III. fysiologickych dnech v Brne
dne 14. 1. 1959.

(WORK, physiol.
resp. (O₂))
(RESPIRATION, physiol.
eff. of work (O₂))

ZAHRADNICEK, Ivan, promovany ekonom, CSc.

Water rates in Czechoslovakia and thier historical development,
Vodni hosp 15 no.2:87-89 '65.

1. Higher School of Economics, Prague.

ZAHRADNICEK, Ivan, premovany ekonom

Water in the national economic process. Vodni hosp 14 no.
1:35-36 '64.

1. Vyseka skola ekonomicka, Praha.

ZAHRADNICEK, J.; VAVRECKA, O.

Basalt-lined pipes for the transportation of pulverized coal in electric-power plants.

P. 438. (ENERGETIKA.) (Praha, Czechoslovakia) Vol. 7, No. 8, Aug. 1957

SO: Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 5, May 1958

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CIA-RDP86-00513R001963420017-8"

SCHMIDT, Lubos; ZAHRADNICEK, Jozef

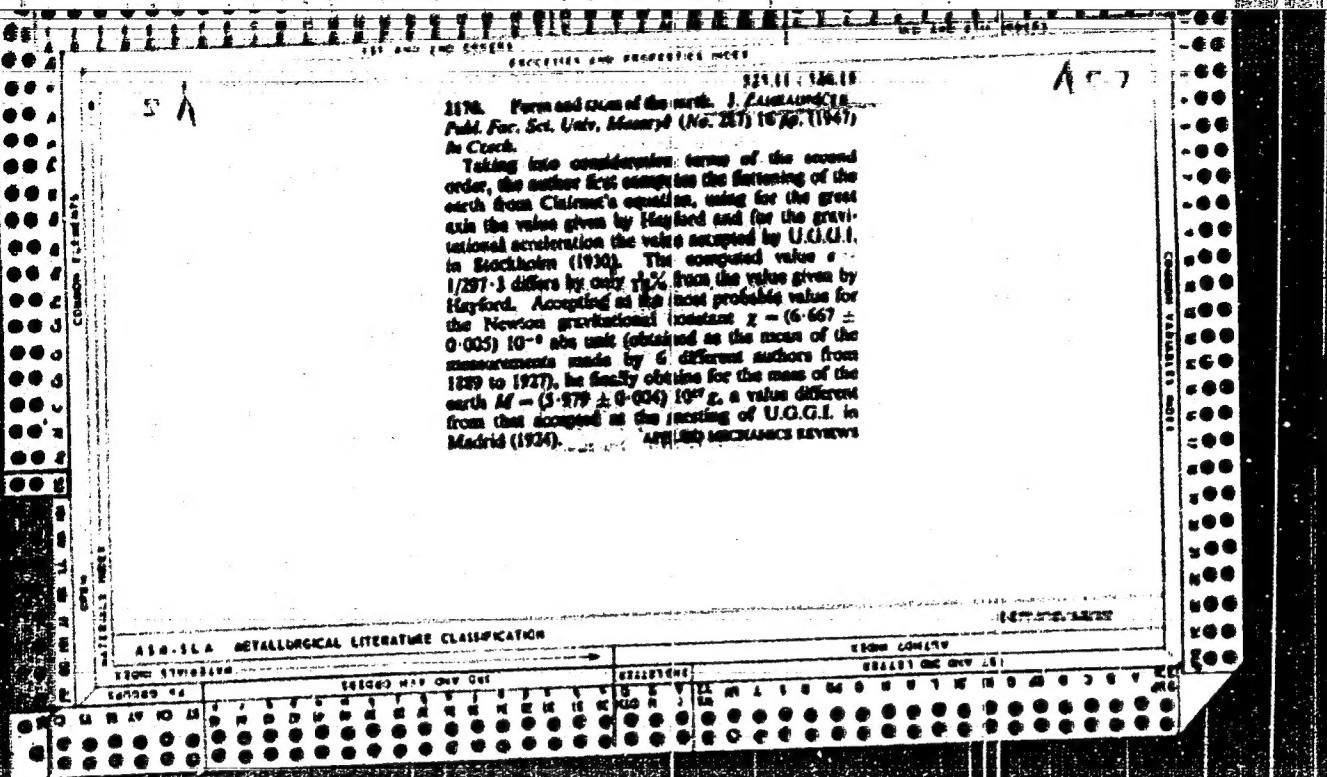
Changes in sugar beet weight during its fluming. Listy cukrovar
80 no. 7:169-171 Jl '64.

SCHMIDT, Lubos; ZAHRAJNICEK, Josef; KEC, Vladimir

Weight losses of sugar beets gathered in small heaps in the field and the influence of the loss on sugar beet technological quality. Listy cukrovar 80 no.8:218-220 Ag'64

ZAHRADNICK, Josef, inz.

"Handbook for the canning industry" by [ir.] Erno Karics, [ir.] Karoly Gynos, Endrene Szemes. Reviewed by Josef Zahradnick. Prusovice, 1964. ISBN 80-5534-535-0. 1964.



SA
1692. Photochemical effects produced by Maxwell's currents. J. ZAMKOWSKI. Rend. Acc. Sci. Univ. Warsaw (A), CII, 3-16 (1940). In Czech.

Gives a series of photographs produced by means of current passing through a condenser, voltage $\sim 10^5$ V, frequency $\sim 10^4$ - 10^5 c/s and intensity of some mA. Different objects in the form of plates have been put into the field of the condenser, e.g. paper, glass, wood, a leaf or a layer of air, etc. The kinetic energy of ions or electrons in the current is changed into photochemical energy on the photographic plate as long as the energy of an electric particle $> 3 \cdot 10^{-11}$ erg, i.e. 1 eV.

A.C.B.
W

ASO-SEA METALLURGICAL LITERATURE CLASSIFICATION

CA

Photochemical effects of Maxwell's currents. Josef Zalmásek. (Masaryk Univ., Brno, Czech). *Fak. Žurnál. sci. univ. Masaryk No. 301, 3-16(1948).* — If between the metal plates of a condenser is put a nonconducting plate of glass or hard rubber, then a photographic plate, an object to be examd., and another nonconducting plate, the Maxwell currents passing through the condenser produce an image on the photographic plate. With voltage of 100 v., frequency 10^5 - 10^6 , current 1 ma., and exposure 1-10 sec., 10 photographs were prepd., with such materials as metal coins, wood, glass, paper, plant leaf, wire gauze, tinfoil, fossils, and various thicknesses of air. Patterns show that the c.d. vary from place to place, according to the structure of the material. With conductors, the pattern corresponds to surface structure; with semiconductors, the inner layers are also shown. The energy of the ions or electrons must be at least 1 e.v. in order to affect the photographic plate. Maxwell's currents, which pass perpendicularly to the photographic plate, must be distinguished from sliding currents expanding along the surface of the photographic plate, producing Lichtenberg's figures. H. Newcombe.

SA

B 66

1

621.396.611.1 : 534.141.4

4293. Strouhal's relation between wind speed and pitch of the sound produced by friction - a general law of physics. J. Zahradnick and F. Kousplik. Cas. Fest. Mat. Fis., 75 (No. 2) 97-102 (1950) In Czech.

There is a complete analogy between the phenomena of the Barichausen-Kurz oscillations in electron tubes, the Zacek oscillations of magnetrons (Z. Hoch-frequenztech., 32, 12 172 (1928)), those investigated by Sahanek in a diode designed for the purpose (Thys. Z., 29, 640 (1928)) and phenomena for which Strouhal found in 1878 a relation $ND = ku$ when studying the friction sounds excited by wind in taut wires (N frequency, D diameter of the wire, u wind speed). It is shown that this relation is a general law of physics which is valid for liquid and gas particles hitting an obstacle as well as for electrons in a triode with a positive grid, in a magnetron or in a diode with an external cathode, the internal anode, of which is in the form of a wire.

B. F. KRAUS (R)

4293.6 METALLURGICAL LITERATURE CLASSIFICATION

621.396.611.1
534.141.4

ZAHRADNICEK, J.

ZAGRADNICK, Ya. [Zahradníček, J.], prof. (Praga)

Guiding principles of our method for treating congenital hip dislocation.
Ortop.travm. i protez. 20 no.6:65-69 Je '59. (MIRA 13:3)

(HIP, disloc.
congen., surg. (Rus.)

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963420017-8

ZAHRADNICK, J.

Treatment of scoliosis. Acta chir.orthop.traum.cech 17 no.9-10:
335-338 1950. (CIML 20:7)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963420017-8"

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963420017-8

ZAHRADNICK, J.

In memoriam prof.dr. Julia Hanauska. Acta chir. orthop. traum czech.
18 no.8-9:307-309 1951. (CLML 21:3)

APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001963420017-8"

ZAHRADNICEK, J.

Scoliosis and the school. Cesk. pediat. 10 no.6:431-433
July 55.

1. I. klinika pro ortopedickou a detskou chirurgii--Praha.
(SCOLIOSIS, in infant and child
school child., special schools & methods.)
(SCHOOLS
special schools for child. with scoliosis.)

ZAHRADNICEK, J., Prof.

Development of orthopedic surgery in Czechoslovakia after the
end of the World War II. Prakt. lek., Praha 35 no.12:285
20 June 55.

(ORTHOPEDICS, history
in Czech., surg.)

JOSEPH ZAHRADNICEK

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and
Their Application, Part 3 ~ Food Industry.

B-27

Abs Jour : Ref. Zhur. Khimiya, No 4, 1958, 12897.

Author : Josef Zahradnicek.

Inst : Not given

Title : Causes of Jam Flowing into Yogurt along Jar Wall.

Orig Pub : Prumysl potravin, 1956, 7, No 3, 133 - 134.

Abstract : No abstract.

Card 1/1

ZAHRADNICEK, J., Prof., Dr.

Pathological dislocation of the hip in infants. Acta chir. orthop.
traum. czech. 23 no.4:171-179 July 56.

1. Z I. Orthoped. kliniky KU v Praze, prednosta prof. Dr.
J. Zahradnicek.
(HIP, dislocation,
in inf., acquired (Cs))

ZAHRADNIK, J., Ins.

The tasks of technical development should have priority.
Elektrotechnik 17 no.2:33 F '62.

1. Ministerstvo tezkeho strojirenstvi, Praha.

ZAHRADNICEK, Jiri, inz.; LANSTIÁK, Bohumil, inz.

An automatic grinding ball batcher. Rudy 10 no.8:281-284
Ag '62.

1. Ustav pro výzkum rud, Praha.

ZAHRADNICEK, J.

"Experience with metal covers for jars in the processing of canned fruit. p. 561."

PRUMYSL POTRAVIN. Praha, Czechoslovakia. Vol. 6, no. 11. 1955.

Monthly list of East European Accessions (EEAI), I.G., Vol. 8, No. 6, Jun 59 unclas

ZAHRADNICEK, J.; CIZEK, A.

SCIENCE

ZAHRADNICEK, J.; CIZEK, A. Time dependence of the physical magnitudes in the universe. p. 251.

No. 384, 1957.

Monthly Index of East European Acquisitions (EEAI) IC, Vol. 7, No. 12, Dec. '58

CZECHOSLOVAKIA/Chemical Technology. Chemical Products II
and Their Uses. Part III. Food Industry.

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 51974

Author : Zahradnicek, Josef

Inst : -

Title : Determination of Essential Oils and Mois-
ture Content in Condiments.

Orig Pub : Prumysl potravin, 1956, 7, No 7, 315-320

Abstract : Method and results of the determination of
essential oils and moisture in ginger, thyme,
anise, black pepper, cinnamon, marjoram,
clove, etc., were described. -- E. Tukachin-
skaya

Card : 1/1

116

Zahradnicek, J.; Cizek, A.

Shifting of the perihelion of the planet Mercury. p. 281.

Bratislava. Univerzita. Prirodovedecka fakulta. SPISY Brno, Czechoslovakia,
No. 365, 1955.

Monthly List of East European Accessions, (EEAI) LC, Vol. 8, no. 10, 1959. Oct.
Uncle.

SCHMIDT, Louis; ZAHAROWICZ, Josef

Effect of natural and artificial ventilation on the storage of sugar beets. Listy zahradnictvi 1964, 1, 164.

1. Submitted June 29, 1964.

KONIG, B.; ZAHRADNICEK, K.; HYZAK, A.

Contribution to eye pathology. (Generalized sympatheticoadenoma
of the adrenal medulla with metastases into both eyes. Cesk.
oftal. 21 no.1:65-71 Ja '65

1. Okni klinika lekarske fakulty Palackeho University v
Olomouci (prednosta: prof. dr. V. Vejdovsky, DrSc.); Okni
oddeleni Obvodniho ustavu narodniho zdravi ve Vsetine (vedouci:
MUDr. K. Zahradnicek), a Patologickoanatomicky ustanov lekarske
fakulty Palackeho University v Olomouci (prednosta: doc. dr.
V. Valach).

KONIG, B.; ZAHRADNICEK, K.

Bilateral metastatic cancer of the choroid of the optic nerve.
Cesk. ophthalm., 16 no.1:78-83 Ja '60

1. Oční klinika lekarské fakulty PřF v Olomouci, prednosta prof.
MUDr. V. Vejdovský Oční oddělení OUHZ ve Vsetíně, prednosta prim.
MUDr. K. Zahradnický.
(CHOROID, neopl.)
(BREAST, neopl.)

DUBANSKY, B., Dr.; HARTL, J., Dr.; MYSILIVY, M., Dr.; SVOBODA, E., Dr.;
DOLENEK, A., Dr.; ZLAMAL, J., Dr.; ZAHRADNICEN, K., Dr.;
DOLENEK, A., Dr.

Papilledema in verified intracranial tumor. Cesk. ofth. 12 no.5:
334-340 Oct 56.

1. Neurologicka klinika PU v Olomouci, prednosta prof. Dr.
Jaromir Hrbek, Ocni klinika PU v Olomouci, predn. prof. dr.
Vaclav Vejdovsky.

(BRAIN, NEOPLASMS, complications,
papilledema (Cx))
(NERVES, OPTIC, diseases,
papilledema in intracranial tumors (Cx))

ZAPRADNICEK, K., Dr.; DOLENEK, A., Dr.

Atrophy of the optic nerve in children. Cesk. oft. 12 no.5:
341-345 Oct 56.

1. Oční klinika PU v Olomouci, prednosta prof. dr. V. Vojdovský
Oční oddělení OUHC ve Vsetíně, prednosta prim. I r K. Záhradnický.
(NERVES, OPTIC, diseases,
atrophy in child. (Cz))

HUING, A.; VASKOVA, M.; ZAHRADNICEK, L.; HOLUSA, R.

Orbital tumors & injury. Česk. oft. 14 no.5:375-379 Oct 58.

1. Oční klinika PU v Olomouci, prednosta prof. dr. V. Vejdovský; Patol.
anatomický ústav PU v Olomouci, prednosta doc. dr. C. Dvořáček; Oční
odd. OUNZ na Vsetíne, prednosta prim. dr. L. Zahradnický.
(ORBIT, neoplasms
post-traum. in inf., case report (Cx))

CZECHOSLOVAKIA/Chemical Technology. Pharmaceuticals. Vitamins. H
Antibiotics.

Abs Jour: Ref Zhur-Khim., No 24, 1958, 82724.

Author : Zahradnicek M.

Inst : OSTAV FARMACEUT. CENAM, PRAGA, CZECHI

Title : A Notation Concerning the Determination of Silver in
Colloidal Solvent Preparations According to the
Czechoslovakian Pharmacopeia 2.

Orig Pub: Farmacia (Ceskosl.), 1956, 25, No 9, 274-276.

Abstract: The conversion of silver from a colloidal into
an ionic form, by the method of the Czechoslovakian Pharmacopeia 2, is time-consuming. The
rapid method of analysis is suggested which gives
accurate reproducible results. A two gram sample
of colloidal silver or ~ one gram of Ag proteinate

Card : 1/2

27

ZAHRADNICEK, M.

CZECHOSLOVAKIA/Analytical Chemistry - General Questions.

E-1

Abs Jour : Ref Zhur - Khimiya, No 8, 1953, 24685

Author : Jakubec, I., Zahradnicek, M.

Inst :

Title : Use of Two Standards in Quantitative Evaluation of Chromatograms Following Elution.

Orig Pub : Sb. chekhosl. khim. rabot, 1957, 22, No 4, 1088-1096

Abstract : See RZhKhim, 1957, 44822.

Card 1/1

ZAHRADNICK, Milen, inz.; ZAVODKY, Karel, inz.

New distribution of aeronautical short-wave frequencies.
Iatecky obzor 8 no.8230-231 Ag'64

CZECHOSLOVAKIA

ZAHRADNICEK, J.: Department of Pharmaceutical Chemistry, Pharmaceutical Faculty, Comenius University (Katedra Farmaceutické Chemie Farmaceuticke Fakulty UK), Bratislava.

"Study of Mixed Indicators by Complementary Tristimulus Colorimetry. II. Screening of Indicators."

Prague, Ceskoslovenska Farmacie, Vol 16, No 2, Feb 67, pp59 - 63

Abstract [Author's English summary modified]: Screening indicators producing a grey coloration have a more distinct color change than individual indicators. The positions of the color changes of mixed indicators are shown by the complementary color points in chromatide diagrams; the junctions of colored points of mixed indicators pass through a narrow range of distinctly different colors with a very clear color change. Simple indicators have broader ranges of color change which are less distinctive. 3 Figures, 3 Tables, 5 Western, 3 Czech references.

1/1

MARSICEK, J., inz.; ZAHRADNICEK, M., inz.

Present state of planning the medium wave broadcast in Africa.
Cs spoje 10 no.1:23-24 F '65.

ZAHRADNICK, M.

Study of mixed indicators w/ complementary tristimulus
colorimetry. I. Calculation of the conditions for obtaining
gray color. Cesk. farm. 13 no.10:489-493 D 1 64

1. Katedra farmaceutische chemie farmaceuticke fakulty
University Komenskeho , Bratislava.

ZAHRADNICEK, Milan, inz.

Conference on space communications. Cs spoje 9 no.1:
3-5 F'64.

1. Ustredni sprava spoju.

ZAHRADNICEK, Milan, irz.

Development of radiobroadcasting in Africa. Cs spoje 9 no.3:15-16
Je '64.

1. Central Administration of Telecommunication.

TOMASKOVA, V.; BLESKOVA, M.; ZAHRADNICEK, M.

Determination of soluble pentobarbital with the use of a mixed indicator bromocresol green-methyl red. Cesk. farm. 13 r.o.3:
93-96 Mr'64.

1. Katedra farmaceuticke chemie farmaceuticke fakulty UK,
Bratislava.

ZAHRADNICEK, Milan, inz.

Extraordinary Administrative Conference on Problems of Radio-
communication in the Universe. Letacky obzor 8 no.3:86-87
Mr'64.

ZABRADNYCEK, Milan, ins.

Tenth Assembly of the International Radio Consultative Committee.
Cs spoje 8 no.319-10 Je '63.

1. Ustredni sprava spoju.

ZAHRADNICEK, Milan, inz.

Problems of the short-wave band. Cs spoje 7 no.1:14 Ja '62.

1. Pracovník Ministerstva dopravy a spoju

COUNTRY	: CZECHOSLOVAKIA
CATEGORY	: Chemical Technology, Chemical Products and Their Uses. Part 3. Synthetic and Natural
ABS. JOUR.	: RZKhim., No. 1 1960, No. 2148
AUTHOR	: Zahradnick, H.; Sekerkova, D.; Benesova, S.
INST.	:
TITLE	: Use of Mixed Indicators in Analysis of Medicinal Preparations. I. Quantitative Determination of Sodium Bicarbonate
ORIG. PUB.	: Ceskosl. farmac., 1958, 7, No 6, 438-440
ABSTRACT	: A comparison of the quantitative determination of NaHCO ₃ , using methyl orange, with determination in the presence of modified mixed indicators, namely, dimethyl yellow - methylene blue and methyl orange - indigo carmine, was carried out. The advantage of the above-named mixed
	*Medicinal Substances. Galenicals and Medicinal Forms

CARD:

1/2

H-58

II

COUNTRY :	
CATEGORY :	
AES. JOUR. :	RZhkhim., No. 1 1960, No. 2148
NUMBER :	
TYPE :	
TITLE :	
ORIG. PUB. :	
ABSTRACT cont'd	Indicators is the precision of the transition of color which produces more accurate results. As compared with the method of the Czechoslovak Pharmacopeia 2, the proposed method is more convenient for determining NaHCO ₃ in small weighed portions, using more diluted solutions and a mixture of methyl orange - indigo carmine as catalysts.-- From authors' summary
FILED:	2/2

JILEK, M.; TRINKA, J.; ZAHRADNICEK, O.

Favre-Racouchot disease. Cesk. derm. 29 no.3:173-175 Ify'64

1. I. dermatovenerologicka klinika fakulty všeobecného lekarství KU (Karlov University) v Praze; prednosta: prof. dr. J. Konopík, DrSc.

ZAHRADNICEK, Rudolf

Survey of Czechoslovak technology at the Second International Fair in
Brno. Nova technika no.11:515-518 N '60.

1. Vedouci OTS Mikrotechny n.p., Praha.

ZAHRADNICEK, Rudolf

Tachometers for aeroplanes. Nova technika no.12:551-553 D '60.

1. Vodouci OTS, Mikrotechna, n.p.

NEPRAŠ, M.; ZAFRAONIČ, R.

Physical properties and chemical reactivity of alternant hydrocarbons and related compounds. ČSL Chem 25 no.7:1545-1560
JL 1st.

M. Research Institute of Organic Synthesis, Karlsruhe-Hybitví,
and Institute of Physical Chemistry, Czechoslovak Academy of
Sciences, Prague.

RASKA, Karel, Doc., MUDr.; RADKOVSKY, Ing.; ZAHRADNICKY, J., dr.;
SYRUCEK, L., dr.

Problem of scarlet fever in Czechoslovakia. Cas. lek. cesk.
91 no.23:669-675 6 June 52.

1. z III. odboru SZU, a' prof. dr. Prochazka, dr. L. Seiller,
z infekcniho oddeleni nemocnice na Bulovce v Praze.
(SCARLET FEVER, epidemiology,
in Czech.)

ZAHRADNICKY J.
(4026)

*Identification of B-haemolytic streptococci (Czech text) CSL. HYG. EPID. MIKROB.1953,
2/2 (132-138)

The technique of collecting and inoculating specimens and the importance of the medium are discussed. By means of immediate inoculation, use of enriching media and other factors discussed, B-haemolytic streptococci were isolated in 98.14% of clinically diagnosed scarlet fever cases. This supports the streptococcal aetiology of the disease.

Syrucok - Prague

SO: E. M. Vol. 7, No. 8 - Sect. IV August 1954

ZAHRADNICKY, Jiri,

ZAHRADNICEK, Jiri, MUDr; STRUCEK, Lubomir, MUDr; BRUCKOVA, Marie;
JELINKOVA, Jaromila; MICKOVA, Stanislava; ROTTI, Jiri, RUDr
SALICOVA, Jitka

Experience with serologic identification of beta hemolytic Streptococci during the period of 1950-1952. Cesk. hyg. epidem. mikrob.
2 no.4:291-300 Aug '53.

1. Ustav epidemiologie a mikrobiologie v Praze, red. doc. Dr Karel
Raacka.

(STREPTOCOCCUS,
hemolytic B, serol. typing)

ZAHRADNICKY, J. MUDr.
BRABEC, S., MUDr; SLEJSKA, Fr., MUDr; ZAHRADNICKY, J., MUDr

Epidemic of angina following consumption of ice cream. Česk. hyg. epidem. mikrob. 2 no.6 :456-459 Dec. 53.

1. Z krajiske hyg.-epidem. stanice v Jihlave, Okresni hyg.-epidem. stanice v Havl. Brode a Ustavu epidemiologie a mikrobiologie v Praze (red. doc. Dr. K.Raska)

(THROAT, diseases,

streptoc. sore throat after ice cream consumption)

(ICE CREAM,

streptoc. sore throat after ice cream consumption)

(STREPTOCOCCAL INFECTIONS,

throat, after ice cream consumption)

KRATKOVA, Edita, MUDr; ZAHRADNICKY, Jiri, MUDr

Use of penicillin in therapy of angina. Cas.lek.cesk. 94 ro.15:
381-384 8 Apr 55.

1. Z dataskeho interniho oddeleni Thomayerovy nemocnice v Praze-Krci (prim. Dr E.Kratkova) a z Ustavu epidemiologie a mikrobiologie v Praze (red. doc. Dr K.Raska)
(PENICILLIN, derivatives,
procaine penicillin G in ther. of anginas)
(PAIN,
anginas in inf. & child. ther., procaine penicillin G)

EXCERPTA MEDICA Sec.6 Vol.11/1 Internal Med. Jan 57
ZAHRADNICKY J.

40. ZAHRADNICKY J. *Ost. Epidemiol. a Mikrobiol., Praha. K léčení sály penicilinem. Treatment of scarlet fever with penicillin CAS. LÉK. ČES. 1955, 94/15 (385-394) Tables 10*

The experiences gained in the treatment with differential penicillin preparations are a proof that there is no substantial difference in the effects of the preparations. The treatment with crystalline penicillin G given twice a day (interval of 12 hr.) is only moderately effective. The author followed the speed of fall of temperature, of recession of the exanthema, the appearance of complications, the rapidity of the disappearance of β -haemolytic streptococci in the smears and the increase of the titre of the antihaemolysin O. The results of these schemes of treatment have been followed: (1) Penicillin for injection of whatever origin in a daily dosage of 200-300,000 I.U. (2) Crystalline penicillin G (Czechoslovakia) 100-150,000 I.U. twice a day. (3) Crystalline penicillin G 50-75,000 I.U. 4 times a day. (4) The 1st day 400,000 I.U. of procillin (procaine-penicillin, Czechoslovakia) and then always 300,000 I.U. of a water suspension of penicillin G per day. (5) First dose the same and then 3 times per day a tablet of perocillin (tablets of 200,000 I.U. of penicillin + amidopyrine) per os. (6) Only perocillin 1 tablet 3 times a day. On the 5th day all patients were practically without fever. The infection disappeared after 32-63 hr. Of 720 patients complications were observed in 7.77%. Eight patients had a relapse during 12 weeks after discharge from hospital. The microbiological effect of the treatment was complete in 98-100%. In group II only 93.75% of patients were negative. In convalescent persons of this group a frequent increase of the titre of the antihaemolysin O was seen. No damage of the white component of the blood by amidopyrine of the perocillin was found. The isolated strains of streptococci of repeated smears were antigenically unchanged. The peroral treatment with penicillin (perocillin) may therefore be considered as valid as the treatment by injection.

Pavlak - Brno (XK, 7, 6)

VYBORNA, M., MUDr.; ZAHRADNICKY, J., MUDr.; DVORAKOVA, M., MUDr.;
Laboratorni spoluprace J. Jelinkova, R. Bicova

Experience with DBED penicillin in the treatment of scarlet
fever. Cesk. epidem. mikrob. imun. 5 no.3:140-146 June
1956.

1. Z oddeleni spaly a zaskrtu Thomayerovy nemocnice v Praze-
Krci, ved lekar MUDr. M. Vyborna, a z Ustavu epidemiologie
a mikrobiologie v Praze, reditel prof. MUDr. Karel Raska.
(PENICILLIN, related compounds,
benzathine penicillin ther. of scarlet fever (Cs))
(SCARLET FEVER, therapy,
benzathine penicillin (Cs))

ZAHRADNICKY, J.

Czechoslovakia/General Division. Congresses. Sessions. Conferences A-4

Abs Jour : Ref Zhur-Biologiya, No 3, 1958, 9333

Author : J. Zahradnický

Inst:

Title : Tenth Session of the Czechoslovak Microbiologists and Epidemiologists

Orig Pub : Seskosl. Epidemiol., imunol, 1956, 5, No 3, 165-166

Abstract : The session was held in Prague 21-23 May 1956 and was devoted to problems of zoonoses. Reports were heard on listeriosis, toxoplasmosis, brucellosis, ornithosis, leptospirosis, Q-rickets and others.

Card 1/1

ZAHRADNICKY, Jiri

Microbiology, epidemiology and clinical aspects of upper respiratory tract diseases in working youth. Cas. lek. cesk. 95 no.49:1345-1351 7 Dec 56.

1. Ustav Epidemiologie a Mikrobiologie v Praze (red. prof. Dr. K. Raska).

(RESPIRATORY TRACT, dis.
in working youth (Cx))

(OCCUPATIONAL DISEASES,
resp. tract dis. in working youth (Cx))

KRATKOVA, Edita; ZAHRADNICKY, Jiri

Importance of proper treatment of pharyngitis in prevention of sterile complications. Cas. lek. cesk. 96 no.5:137-140 1 Fev 57.

1. Detske interni oddeleni Thomayerovy nemocnice v Praze-Krci,
primar Dr. E. Kratko Ustav epidemiologie a mikrobiologie v
Praze, prednosta prof. Dr. Karel Raska. E. K., Praha-Krc,
Budejovicka 800.

(PHARYNGITIS, in inf. & child
streptococcal, prev. of endocarditis, glomerulonephritis
& rheum. fever with penicillin (Cs))

(ENDOCARDITIS, in inf. & child
prev. with penicillin ther. of streptococcal pharyngitis
(Cs))

(RHEUMATIC FEVER, prevention & control
penicillin ther. of streptococcal pharyngitis (Cs))

(GLOMERULONEPHRITIS, in inf. & child
prev. with penicillin ther. of streptococcal pharyngitis
(Cs))

(STREPTOCOCCAL INFECTIONS, in inf. & child
pharyngitis, prev. of endocarditis, glomerulonephritis &
rheum. fever with penicillin (Cs))

ZAHRADNICKY, JIRI
ZAHRADNICKY, Jiri, Doc. MUDr.

Present knowledge of streptococcal infections. I. Laboratory and experimental problems. Cas. lek. cesk. 96 no.50:Lek. veda cesk. 96 no.50:213-220 13 Dec 57.

I. Ustav pro mikrobiologii a epidemiologii lekarske fakulty university Karlovy se sídlem v Plzni, prednosta doc. Dr J. Zahradnický. Ustav pro mikrobiologii a epidemiologii lek. fak., Plzen, Marxova 13.

(STREPTOCOCUS, metabolism,
review (Cz))

ZAHRADNICKY, Jiri, Doc. MUDr.

Present knowledge of streptococcal infections. II. Clinical and epidemiological problems. Cas. lek. cesk. '96 no.50:Lek. veda zahr.: 220-229 13 Dec 57.

1. Ustav pro mikrobiologii a epidemiologii lekarske fakulty university Karlovy se sídlem v Plzni, prednosta doc. Dr J. Zahradnický. Ustav pro mikrobiologii a epidemiologii lék. fak. Plzeň, Marxova 13.

(STREPTOCOCCAL INFECTIONS,
review (Cs))

ZAHRADNICKY, J.
ZAHRADNICKY, Jiri; TUMOVA-PAPIRNKOVA, Bala

Problem of prevention of influenza in groups by vaccination. Cas. lek. cesk. 97 no.1:10-15 3 Jan 58.

1. Ustav epidemiologie a mikrobiologie v Praze, red. prof. Dr K. Hasko
J. Z., Plzen, Marxova 13.
(INFLUENZA, prev. & control.
vacc. of groups in Czech. (Cz))

ZAHRADNICKY, Jiri

Problems and prospects of medical microbiology and epidemiology.
Plzen. lek. sborn. 24:127-134 '64

1. Ustav pro mikrobiologii a epidemiologii lekarske fakulty
University Karlovy v Plzni (prednosta: doc. MUDr. J. Zahradnický).

ZAHRADNICKY, J.; VYMOLA F.; HEJZLAR, M.; POTUZNIK, V.; KUBALA, E.;
HEJNY, J.

Current status of the sensitivity of some pathogenic agents in
Czechoslovakia. Cas. lek. cesk. 104 no.23:609-614 11 Je'65.

1. Ustav pro mikrobiologii a epidemiologii lekarske fakult;
Karlov University v Plzni; Ustav epidemiologie a mikrobiologie
v Praze; Vojensky ustav hygieny, epidemiologie a mikrobiologie
v Praze; Krajska hygienicko-epidemiologicka stanice v Ceskych
Budejovicich; Lecebitna tuberkulozu v Janove u Mirosova; a Lecebitna
tuberkulozu ve Vyanych Hagach.

VYMOLA, F.; HEJZLAR, M.; ZAHRADNICKY, J.; POTUZNIK, V.

Determination of the sensitivity of microbes to antibiotics
by the disk method. Cesk. epidem. 12 no.5:290-303 3 '63.

1. Ustav epidemiologie a mikrobiologie v Praze - Vojensky
ustav hygieny, epidemiologie a mikrobiologie v Praze - Ustav
mikrobiologie a epidemiologie lekarske fakulty KU v Plzni -
Krajska hygienicko-epidemiologicka stanice v C. Budejovacich.
(DRUG RESISTANCE, MICROBIAL) (ANTIBIOTICS)

EXCERPTA MEDICA Sec 7 Vol 10/11 Pediatrics Nov 56

2531. ZAHRADNICKÝ J. Úst. Epidemiol. a Mikrobiol., Praha. "K léčení spály penicilinem." Treatment of scarlet fever with penicillin
CAS. LÉK. ČES. 1955, 94/15 (385-394) Tables 10

The experience gained in the treatment with different penicillin preparations are a proof that there is no substantial difference in the effects of the preparations. The treatment with crystalline penicillin G given twice a day (interval of 12 hr.) is only moderately effective. The author followed the speed of fall of temperature, of recession of the exanthema, the appearance of complications, the rapidity of the disappearance of β -haemolytic streptococci in the smears and the increase of the titre of the antihæmolsin O. The results of these schemes of treatment have been followed: (1) Penicillin for injection of whatever origin in a daily dosage of 200,000-300,000 I.U. (2) Crystalline penicillin G (Czechoslovakia) 100,000-150,000 I.U. twice a day. (3) Crystalline penicillin G 50,000-75,000 I.U. 4 times a day, (4) The 1st day 400,000 I.U. of procilin (procaine-penicillin, Czechoslovakia) and then always 300,000 I.U. of a water suspension of penicillin G per day. (5) First dose the same and then 3 times per day a tablet of perocilin (tablets of 200,000 I.U. of penicillin + amidopyrine) per os, (6) Only perocilin 1 tablet 3 times a day. On the 5th day all patients were practically without fever. The infection disappeared after 32-63 hr. Of 720 patients complications were observed in 7.77%. Eight patients had a relapse during 12 weeks after discharge from the hospital. The microbiological effect of the treatment was complete in 98-100%. In group 2 only 93.75% of patients were negative. In convalescent persons of this group a frequent increase of the titre of the antihæmolsin O was seen. No damage of the white component of the blood by amidopyrine of the perocilin was found. The isolated strains of streptococci of repeated smears were antigenically unchanged. The poral treatment with penicillin (perocilin) may therefore be considered as valid as the treatment by injections.

Pavlák - Brno (XX, 7, 6)

ZAHRADNICKY J.

CZECHOSLOVAKIA / Virology. Human and Animal Viruses. Influenza E-3
Virus.

Abs Jour : Ref Zhur - Biol., No 18, 1958, No 81253

Authors : Zahradnický, J.; Tumova-Papirnikova, B.

Inst : Not given

Title : Influenza Prophylaxis in Collective Farms by Vaccination

Orig Pub : Casop. lekaru českých., 1958, 97, No. 1, 10-15.

Abstract : No abstract.

Card 1/1

11

KRATKOVA, E.; ZAHRADNICKY, J.

Antistreptolysin O titer in angina & its relation to the incidence
of complications. Cas. lek. cesk. 98 no.12:355-358 20 Mar 59.

1. Detakce oddlení Thomayerovy nemocnice v Praze-Krči, primar MUDr.
E. Kratkova, Ustav epidemiologie a mikrobiologie v Praze, reditel
prof. MUDr. Karel Baskov, Ustav pro mikrobiologii a epidemiologii
lekarske fakulty university Karlovy se sídlem v Plzni, prednosta
doc. MUDr. Jiri Zahradnický, E. K., Praha-Krč, Budejovická 800.

(STREPTOCOCCAL INFECTIONS, in inf. & child
antistreptolysin O levels, relation to possible develop.
of rheum. fever (Cz))

(RHEUMATIC FEVER
develop. during streptoc. infect., relation to anti-
streptolysin O levels (Cz))

(ANTISTREPTOLYSIN, in blood
O, in streptoc. infect. in child., relation to develop
fever (Cz))

LEJA, Zbigniew; MALLEK, Danuta; ZAHRADNIK, Andrzej

Observations on the behavior of protein fractions in the blood serum
during the course of acute infectious diseases. Przegl. epidem. 14
no.4:423-429 '60.

1. z Oddzialu Chorob Zakaznych Szpitala Miejskiego im. J.Strusia w
Poznaniu Ordynator: dr med. A. Zahradnik.
(COMMUNICABLE DISEASES blood) (BLOOD PROTEINS)

CZECHOSLOVAKIA

ZAHRAVINIK, A.

No affiliation given

Bratislava, Farmaceuticky obzor, No 10 [October] 1966, p 476

"PhMr. Ludovit Parkasovsky's Jubilee."

ZAHRADNIK, L.

"Germanium in the products of direct coal combustion and its extractibility of hydrochloric acid."

CHEMICKY PRUMYSL, Praha, Czechoslovakia, Vol. 9, No. 3, March 1959.

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CA ZABRADNIK, F.

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Method-11

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ZAHRADNIK, Frantisek; HABERSBERGEROVA, Anna

Device for opening ampuls with gas samples. Chem listy 58
no. 4:468 Ap '64.

1. Institute of Polarography, Czechoslovak Academy of Sciences,
Prague (for Zahradnik). 2. Nuclear Research Institute, Czechoslovak
Academy of Sciences, Rez. (for Habersbergerova).

ZAHRADNIK, J.

"Notes on occurrence of certain species of malytids of the family
Baeococcidae in Czechoslovakia."

SPORNÍK FAUNISTICKÝCH VYDÁV. ACTA FAUNISTICA ENTOMOLOGICA, Vol. 1, 1956
Praha, Czechoslovakia

Monthly list of EAST EUROPEAN ACCESSION INDEX (EEAI), Library of Congress,
Vol. 8, No. 7, July, 1959

Unclassified

ZAHRADNIK, J.

"Professor Jan Obenberger's sixty-fifth birthday; a biographic sketch. In French."

p. 3 (Sbornik Faunistickych Praci. Acta Faunistica Entomologica, No. 2, 1957,
Praha Czechoslovakia.)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 6 June 1958.

ZAHNADNIK, J.

"Three new species of the genus Aleurodidae found in Austria; a contribution to the knowledge of the European Aleurodidae; Homoptera, Aleurodinea. In German."

p. 9 (Sbornik Faunistickych Praci. Acta Faunistica Entomologica, No. 2, 1957, Praha Czechoslovakia.)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No.6 June 1958.

ZAHRADNIK, J.

"Three new species of white flies (Aleyrodoidea) in Czechoslovakia."

SEVERNÍKA FAUNISTICKÝCH PRACÍ. ACTA FAUNISTICA FUTVOMORAVICA, Vol. 1, 1956
Práha, Czechoslovakia

Monthly List of EAST EUROPEAN ACCESSION INDEX (EEAI), Library of Congress,
Vol. 8, No. 7, July, 1959

Unclassified

ZAHRADNIK, J.

Certain species of white flies in Czechoslovakia; first contribution to monography
on white flies in Central Europe. p. 40

Vol. 12⁴, no. 1, 1955
CASOPIS: ODDIL PRIRODEVEDENI
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5, No. 4, 1956

ZAHRADNIK, J.; MOUCHA, J.

Some natural history museums and scientific research institutes in Austria.
p. 90. (CASOPIS; ODDIL PRIRODOVEDNY, Vol. 126, No. 1, 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

ZAHRADNIK, Kvetoslav, inz.

Results of overloading a reinforced concrete crane runway.
Inz stavby 13 no.2:54-55 F '65.

VONDRAKOVA, Zdena, inz.; ZAHRADNIK, Lubomir, dr., inz., laureat statni
ceny; STOVIK, Miroslav, inz., laureat statni ceny

Gallium and its raw materials in Czechoslovakia. Geol pruzkum
5 no.5:142-143 My '63.

1. Ustav nerostnych surovin, Kutna Hora, pracoviste v Praze.

ZAHRADNIK, L.; STOVIK, M.; TYROLER, J.

Distribution of germanium between the combustion products in a hearth having a traveling grate. p. 62

CHEMICKE PRUMYSI. (Ministerstvo chemickeho prumyslu) Praha, Czechoslovakia
Vol. 9, No. 2, Jan. 1959
Feb.

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Uncl.

COUNTRY : CZECHOSLOVAKIA
CATEGORY : Chemical Technology. Chemical Products and H
ABS. JOUR. : Their Uses. Part 2. Ceramics. Glass. Binding.
AUTHOR : Voldan, J.; Zahradnik, L.
INST. : Central Institute of Geology
TITLE : Use of Differential Thermal Analysis in the
Study of Crystallization of Fused Melaphyre
ORIG. PUB. : Sb. Ustredn. ustanov geol. odd. geol., 1957
(1958), 24, No 1, 113-128
ABSTRACT : The process of crystallization of volcanic
melaphyre glass in Lomnice and Dolni Kalne
was studied. During heating, magnetite (710-
720°), monoclinic pyroxene (685°) and plagi-
oclase (1060°) crystallize successively. Fusion
of the separated minerals takes place at a
temperature > 1110°. The minerals obtained
Materials. Concrete. Glass

CARD:

1/2

H-43

COUNTRY : Czechoslovakia
CATEGORY :

H-22

ABS. JOUR. : RZKhim., No. 1950, No. 87897

AUTHOR : Zahradnik, L.; Stovik, M.; Tyroler, J.

INST.

TITLE : Distribution of Germanium in Products of the Combustion of Coal in Fire Boxes with Moving Grate

ORIG. PUB. : Chem. prumysl, 1959, 9, No 2, 62-64

ABSTRACT : The authors have studied the feasibility of securing starting raw materials for Ge production, from products of direct combustion of coal. A material balance is presented for a boiler with conveyer grate, considered from the standpoint of Ge-distribution among individual products of combustion. More than 70% of Ge originally contained in the coal are distributed between volatilized ash and furnace cinders. Cinders, because of low Ge-content (concentration of about 10-3%) can not be processed. Flying ash containing from 0.3 to 0.5% Ge can provide excellent raw material for the production of this element.

Authors' summary.

CARD:

GRYGAREK, Jiri, inz.; ZAHRADNIK, Ladislav

Results of the measurement and analysis of the ventilation system at the Medlov Mine in the Jeseniky Ore Mines. Sbor VSB Ostrava 9 no.4:507-529 '63.

Measurement and evaluation of mining on the surface conditions at the Medlov mine in the Jeseniky Ore Mines. Ibid. 1581-603

1. Vysoka skola bamska, Ostrava (for Grygarek). 2. Rudne doly Jesenik, zavod Medlov (for Zahradnik).

ZAHRADNIK, L.; VOLDAN, J.

"Use of differential thermal analysis in the investigation of the crystallization of melted melaphyre"

Sbornik. Oddil geologicky. Praha, Czechoslovakia. Vol. 24, no. 1, 1957 (published 1958)

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

ZAHRADNIK, L.

CZECHOSLOVAKIA/Cosmochemistry - Geochemistry -
Hydrochemistry.

D.

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 24605
Author : Svasta, J., Zahradnik, L., Sulcek, Zd., Stovik. M.,
Bouberle, M., Rotter, R.
Inst : -
Title : Content of Germanium in Czechoslovak Coal and Its Products
Orig Pub : Geotechnica, 1955, No 20, 142 s., il.

Abstract : Presentation of the results of oxidimetric, potentiometric, phenylfluoronic, spectral and also the polarographic and roentgeno-spectral (with the use of Ge K line) analyses, developed by the authors, of samples collected from all the coal fields and of ash from gas plants. The last mentioned method is considered best, yielding qualitative and quantitative results with an accuracy of 3 .
. 10⁻³% with coal and of 0.05% with fly ash. Highest concentration of Ge was found in coal of western Bohemia in

Card 1/2

ZAHRADNIK, Lubomir; TYROLER, Jiri; VONDRAKVA, Zdenka

Germanium content in the seam zones of the Pilsen coal basin. Sbor
chem tech 4 no.2:267-276 '60. (EEAI 10:9/10)

1. Ustav herosnych surovin, Praha a katedra mineralogie, Vysoka
skola chemicko-technologicka, Praha.

(Germanium) (Coal)

Z/009/61/000/012/001/005
E112/E953

AUTHORS:

Zahradník, Lubomír, Formánek Zdeněk, Šťovík
Miroslav, Tyroler Jiří and Vondráková Zdena

TITLE:

Recovery of germanium dioxide from flue dusts

PERIODICAL:

Chemický průmysl, no.12, 1961, 625-629

TEXT: The only domestic sources of germanium in Czechoslovakia are the flue dusts from certain coals (germanium contents range from 0.2 to 0.8%) and the present paper discusses three possible methods of recovery via germanium dioxide: 1) Extraction with water or inorganic solvents, such as H_2SO_4 , HCl, HNO_3 , NaOH and $(NH_4)_2S_x$. Best results are achieved with 0.05 N- H_2SO_4 , yielding up to 97% of the available germanium. Extraction efficiency is closely connected with the physical characteristics of the flue dusts, good recoveries being obtainable only with flue dusts of very fine particle size. Furthermore, only germanium available in soluble form will respond to the method. 2) Chlorination of flue dusts. This process can be operated either at lower temperatures, in presence of steam, or at high temperatures, in presence of air. Compared to the distillation method with HCl,

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Recovery of germanium ...

Z/009/61/000/012/001/005
E112/E953

yields of germanium are inferior and the recovered products less pure. A further rectification is therefore necessary. The chlorination method, on the other hand, offers the advantage that even very low-content flue-dusts can be processed. 3) Direct distillation with HCl. This method is considered the simplest from the technological point of view. It is only suitable for raw materials, containing germanium in a volatilisable form and is not economical for flue-dusts with low germanium content. The method consists of treating the flue dust with HCl, and procedures for the separation of the formed GeCl₄ are described in detail. So far, this has been effected in two ways: a) Absorption of the gaseous mixture in water, containing 20% HCl. A recovery of 2-13 g germanium per 1 litre is feasible but this is considered unsatisfactory. b) Separation of germanium tetrachloride by condensation. However, considerable amounts of GeCl₄ are entrained by HCl, and the method is, therefore, rejected as uneconomical. The authors now offer a new procedure for GeCl₄ absorption, based on the use of non-polar solvents, of which carbon tetrachloride has proved the most suitable. The efficiency of a 0.2% GeCl₄ solution in CCl₄.

Card 2/b4

Recovery of germanium ...

Z/009/61/000/012/001/005
E112/E953

is given as 97-99.5% at 20°C. As practical processing would require large volumes of CCl_4 (1500 kg/kg Ge) a two-step absorption process is suggested. A diagram of a laboratory arrangement for the continuous recovery of germanium tetrachloride by the carbon tetrachloride method is shown (Fig.6). The apparatus operates under slight vacuum and has a capacity of 30 kg flue dust per day. The solution of GeCl_4 in CCl_4 is preliminarily refined by extraction with concentrated hydrochloric acid, containing 10% nitric acid. Hydrolysis of GeCl_4 is carried out in the usual way. The experience gained in laboratory trials led to the construction of a semi-technical batch-wise unit, which in two months produced 10 kg germanium dioxide from 1000 kg flue dust. There are 5 tables, 5 figures and 5 references: 2 Soviet-bloc and 3 non-Soviet bloc. The English-language references read as follows: Ref.1: Journal of Metals, 979(1953); Ref.2: Johnson O.H., Chemical Reviews, vol.51, 432 (1952); Ref.5: Aubrey K.V., Nature, vol.176, 2 (1955).

ASSOCIATION: Ústav nerostných surovin, Praha
(Institute for Mineral Raw Materials, Prague)

Card 3/54

Recovery of germanium ...

Z/009/61/000/012/001/005
E112/E953

SUBMITTED: January 16, 1961

Fig.6. Legend.

1 - mixing vessel, with stirrer, for absorption of flue dust in hydrochloric acid,
3,4 - steam-heated boiling tubes,
5 - separator,
6 - condenser,
7 - absorption vessel,
8 - absorption column with Raschig rings,
10 - separating funnel with CCl_4 ,
9 - condenser, cooled to 0°C ,
11 - reservoir, to which a slight vacuum is applied.

Card 4/5/4

S/081/63/000/001/048/061
B144/B186

AUTHORS:

Tyroler, Jiří, Formánek, Zdeněk, Vondráková, Zdena,
Zahradník, Lubomír, Štovík, Miroslav

TITLE:

Production of pure germanium dioxide from germanium
concentrates

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 1, 1963, 347, abstract
1138 (Czechosl. patent 101148, October 15, 1961)

TEXT: Ge concentrates are distilled continuously with concentrated HCl
(ratio 1 : 1 - 2) with simultaneous bubbling of Cl₂ (gas) through the
solution or addition of oxidants (K₂Cr₂O₇ + H₂SO₄). The GeCl₄ vapors
together with HCl, vapors Cl₂ and impurities are washed out of the gas
mixture by organic solvents (CCl₄); then, the GeCl₄ dissolved in the
organic solvent is washed with HCl (acid) and hydrolyzed. Example. The
apparatus comprises 2 containers with agitators of 70 l capacity (the
mixture is tapped from one container, while at the same time the other

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Production of pure germanium ...

3/061/63/000/001/048/061 -
B144/B186

tank is filled), a metering pump, a cooking boiler, a foam separator and an absorber. In the containers, the mixture of 25-30 kg concentrate and 50 kg HCl (acid) is prepared. The absorber is filled with CCl_4 . The operation of the metering pump and the heating of the boiler is controlled in such a way that the foam entering the separator has a temperature of 100°C . From the separator the suspension is drained-off to waste, but the vapors are led into the absorber, from which GeCl_4 dissolved in CCl_4 is drawn off intermittently or continuously and hydrolyzed thrice with distilled water. The product contains 0.005 - 2% As and is a suitable raw material for semiconductors. [Abstracter's note: Complete translation.]

Card 2/2

23568

18.3180 only 1087

Z/009/61/000/007/001/004
E112/E135

AUTHORS: Zahradník, Lubomír, Formánek, Zdeněk, Štovík, Miroslav,
Tyroler, Jiří, and Vondráková, Zdena

TITLE: Properties of furnace flue dusts and their use for the
recovery of germanium

PERIODICAL: Chemický průmysl, 1961, No.7, pp. 337-341

TEXT: Coal which is rich in germanium was ashed in a reducing atmosphere and coarser fractions were separated by means of cyclones. Flue dust of finer particle size was recovered by electrostatic separation and this contained up to 1% germanium. Industrial recovery of germanium was considered feasible and therefore laboratory methods for its extraction and the nature of the bond between germanium and the flue dust particles were studied. The flue dust was separated into different fractions according to particle size and the relationship between germanium concentration and particle size was investigated. Germanium contents decreased as the particle size increased and, consequently, main attention was paid to flue dust smaller than 60 μ (0.12% Ge). During the ashing of coal a number of elements are volatilized and absorbed

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X

23568

Z/009/61/000/007/001/004
E112/E135

Properties of furnace flue dusts and their use for the recovery of germanium

from the gaseous phase by the flue dust particles. The sorption process was studied by determining the concentrations of the various elements in the original coal and the flue dust. Spectroscopic methods of analysis were used and results are tabulated. On the average, the flue dusts contained between 27 and 33% combustible materials. Their concentration decreased on extraction with 0.2 N-H₂SO₄, indicating that they did not consist entirely of carbon. Results for three types of flue dust are tabulated, showing the following: 1) loss of weight of flue dust on calcination; 2) loss of weight of flue dust on calcination, after extraction with H₂SO₄; and 3) loss of weight of flue dust on extraction with H₂SO₄. Results of spectrographic analyses of flue dusts, H₂SO₄-extracts and extraction residues are submitted, listing all elements occurring in the three different fractions in the following concentrations: 1) higher than 1%; 2) 1.0-0.1%; 3) 0.1-0.01%; and 4) lower than 0.01%. The following values are tabulated for germanium: original sample of flue dust, 1 - 0.1%;

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Z/009/61/000/007/001/004
E112/E135

Properties of furnace flue dusts and their use for the recovery of germanium

H₂SO₄-extract, 1 - 0.1%; ashing residue of H₂SO₄-extract, 0.1 - 0.01%. Extraction methods for germanium from flue dusts, using water, acids, and alkalis, are described. Water extraction recovered about 50% of the available germanium. Extractability with H₂SO₄ was inversely proportional to the concentration of the latter, (20 N-H₂SO₄ extracted 64.5% Ge, while 0.05 N-H₂SO₄ gave 96.7% recovery). On the other hand, extractability with HCl increases with increased concentration. Recovery of Ge by means of HNO₃ was not feasible. The separation of Ge by means of HCl from the coarser fly ashes is also described. An addition of HF (in the form of CaF₂) is recommended to convert the SiO₂ to SiF₄, which is driven off by heating. Extraction with weakly alkaline solutions was somewhat inferior to processing with dilute acids. In order to obtain additional information about the isolation of germanium from flue dusts, the volatility of germanium dioxide at different temperatures was studied and results are tabulated. It was found that up to 400 °C germanium was not volatile and was

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23568

Z/009/61/000/007/001/004
E112/E135

Properties of furnace flue dusts assumed to be present as GeO₂, easily soluble in alkalis. On the other hand, samples of flue dust, heated under identical conditions, showed poor extractability of Ge by means of dilute sulfuric acid. This is explained by the poor solubility of GeO₂ in H₂SO₄. It is concluded from laboratory experiments that flue dusts containing 0.3-1.0% Ge present a suitable raw-material for a Czechoslovak germanium recovery industry. Extraction with dilute sulfuric acid or treatment with HCl and distillation as GeCl₄, optionally in a stream of HCl, are suggested. The described laboratory methods were utilized for industrial scale production, details of which are to be published later. There are 7 figures, 12 tables and 12 references; 3 Czech, 7 English and 2 German.

ASSOCIATION: Ústav nerostných surovin, Praha
(Institute for Mineral Raw-Materials, Prague)

SUBMITTED: January 16, 1961

Card 4/4

S/081/62/000/019/019/053
B144/B180

AUTHORS: Stovík, Miroslav, Zahradník, Lubomír, Tyroler, Jiří, Vondráková, Zdena, Formanek, Zdeněk

TITLE: Production of concentrates of germanium and other trace elements by burning coal in furnace grates

PERIODICAL: Referativnyj zhurnal. Khimiya, no. 19, 1962, 340, abstract 19K82 (Czechoslovakian patent 299414, April 15, 1961)

TEXT: When coal is burned in furnaces, almost all the Ge is carried away with the finer fractions in the form of volatile compounds. For more complete removal it is suggested that the coal should be burnt in a reducing atmosphere. To this end the entry of primary air from below is restricted to a minimum and that of secondary air above the grate is increased. The amount of Ge compounds adsorbed in the thin fractions then rises to 80% the Ge content of the coal. The combustion gases are led through a cyclone, where the largest particles are separated, and then through an electrostatic filter and a second cyclone. Alternatively, after separating the large particles, the gas is passed through a scrubber, (with either mineral or sili-